### DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

## LAKE TROPHIC DATA

#### MORPHOMETRIC:

Lake: LARRY'S POND	Lake Area (ha):	4.86
Town: RICHMOND	Maximum depth (m): 4	1.9
County: Cheshire	Mean depth (m):	L.4
River Basin: Connecticut	Volume $(m^3)$ : 64	1000
Latitude: 42°46'00" N	<b>+</b>	2.0
Longitude: 72°13'12" W	Shore configuration:	
Elevation (ft): 1148	Areal water load (m/yr): 20	
Shore length (m): 1250	\ /	5.40
Watershed area (ha): 184.8		.47
<pre>% watershed ponded: 0.0</pre>	Lake type: natural wa	/dam

BIOLOGICAL:	13 February 2003	8 August 2002
DOM. PHYTOPLANKTON (% TOTAL) #1	PERIDINIUM 35%	MALLOMONAS 45%
+2		MERISMOPEDIA 40%
#3	(ALL ALGAE SPARSE)	PERIDINIUM 12%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		7.03
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 72%	KELLICOTTIA 62%
#2		NAUPLIUS LARVA 22%
#3		POLYARTHRA 9%
ROTIFERS/LITER	38	151
MICROCRUSTACEA/LITER	<1	54
ZOOPLANKTON ABUNDANCE (#/L)	47	204
VASCULAR PLANT ABUNDANCE		Common
SECCHI DISK TRANSPARENCY (m)		2.2
BOTTOM DISSOLVED OXYGEN (mg/L)	2.6	0.3
BACTERIA (E. coli, #/100 ml) #1		< 1
#2		< 1
#3		

## SUMMER THERMAL STRATIFICATION:

## stratified

Depth of thermocline (m): 3.5 Hypolimnion volume  $(m^3)$ : None Anoxic volume  $(m^3)$ : 15

: 1500

CHEMICAL:			LARRY'S E	POND	
	13 Febru	ary 2003	8 7	August 200	02
DEPTH (m)	1.5	3.0	1.5		3.0
pH (units)	5.1	5.0	5.5		5.3
A.N.C. (Alkalinity)	0.4	0.4	0.9	-	-0.1
NITRATE NITROGEN	0.10	0.09	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	< 0.25	0.30	0.50		0.50
TOTAL PHOSPHORUS	0.012	0.017	0.023		0.022
CONDUCTIVITY (µmhos/cm)	40.2	39.2	29.5		30.0
APPARENT COLOR (cpu)	33	44	70		70
MAGNESIUM			0.43		, , , , , , , , , , , , , , , , , , , ,
CALCIUM			1.1		
SODIUM			3.3		
POTASSIUM			0.65		
CHLORIDE	5	5	4		4
SULFATE	6	5	3		3
TN : TP		23	22		23
CALCITE SATURATION INDEX			5.8		

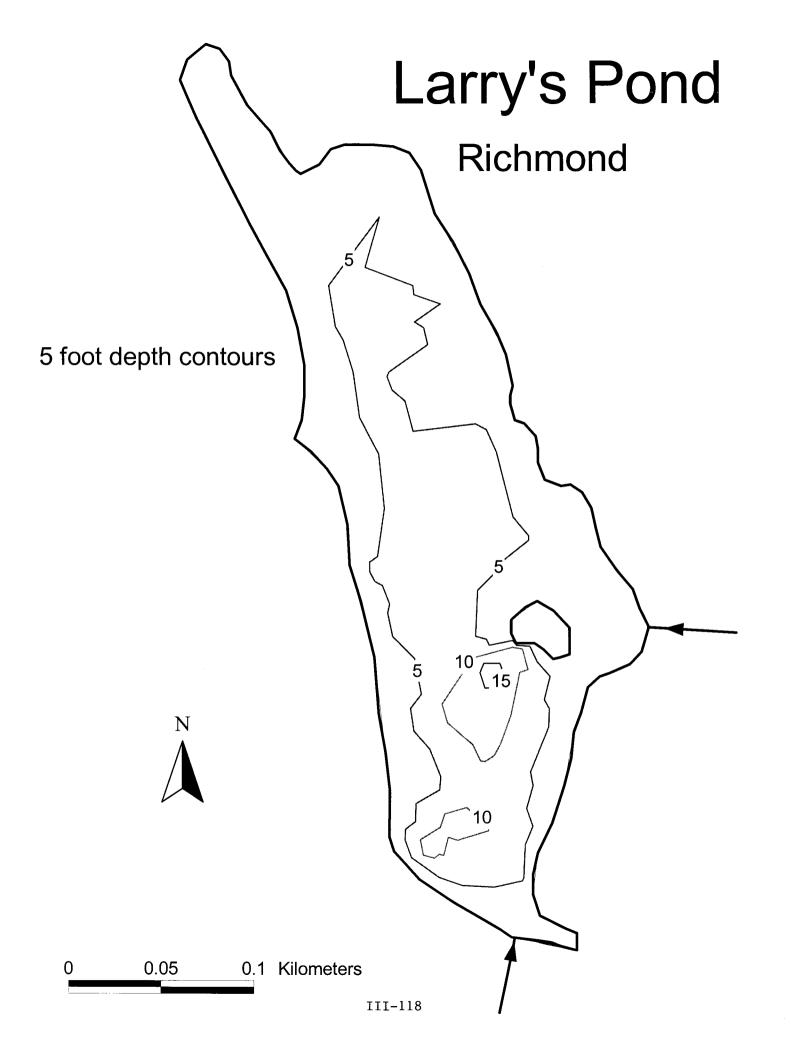
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2002

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	3	1	7	Meso.

## COMMENTS:

- 1. No public access. The pond is surrounded by privately-owned lands under Morgan Reserve Homeowners Association control. Signs indicated private road, private pond and private beach. Canoe access only with permission of the association.
- 2. This is a tea-colored acidic pond with essentially no ANC (buffering capacity). Phosphorus levels were somewhat elevated but plankton production was not high.



#### FIELD DATA SHEET

LAKE: LARRY'S POND

DATE: 08/08/2002

TOWN: RICHMOND

WEATHER: Clear, warm & breezy

DEPTH	TEMP	*DISSOLVED	OXYGEN
(M)	(°C)	OXYGEN	SATURATION
0.1	23.0	6.6	76 %
1.0	22.9	6.4	75 %
2.0	22.6	6.3	73 %
3.0	19.6	0.4	4 %
4.0	13.8	0.2	2 %
4.5	11.8	0.3	3 %
		,	
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		*	

SECCHI DISK (m): 2.2

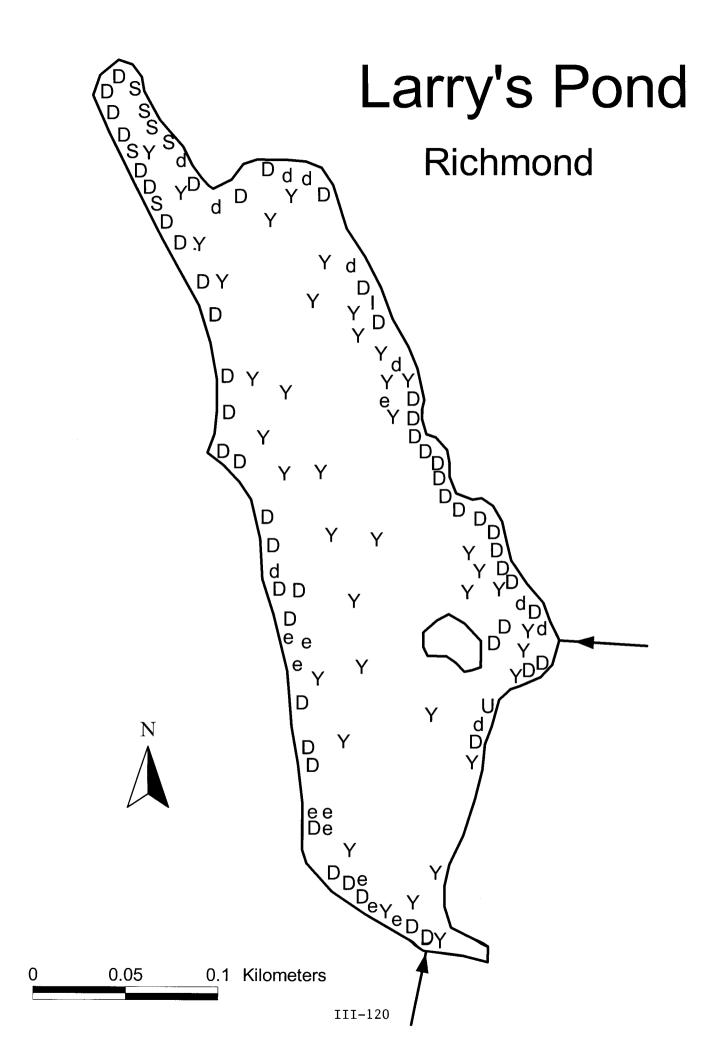
COMMENTS:

BOTTOM DEPTH (m): 4.9

Essentially no D.O. below 3 meters.

TIME: 1200

\*Dissolved oxygen values are in mg/L



## AQUATIC PLANT SURVEY

E: LARRY'S POND	OWN: RICHMOND	דעם	E: 08/08/2002
			25, 00, 00, 2002
			ABUNDANCE
			Common
Decodon verticillatus			Common
Dulichium arundinaceum	Three-way sedge		Common
Utricularia	Bladderwort		Scat/Common
Eleocharis	Spike rush		Scattered
Iris versicolor	Blue flag		Scattered
Sparganium	Bur reed		Scattered
			-, -, -, -, -, -, -, -, -, -, -, -, -, -
			-
	GENERIC  Nuphar  Decodon verticillatus  Dulichium arundinaceum  Utricularia  Eleocharis  Iris versicolor	PLANT NAME  GENERIC COMMON  Nuphar Yellow water lily  Decodon verticillatus Swamp loosestrife  Dulichium arundinaceum Three-way sedge  Utricularia Bladderwort  Eleocharis Spike rush  Iris versicolor Blue flag	PLANT NAME  GENERIC COMMON  Nuphar Yellow water lily  Decodon verticillatus Swamp loosestrife  Dulichium arundinaceum Three-way sedge  Utricularia Bladderwort  Eleocharis Spike rush  Iris versicolor Blue flag

# **GENERAL OBSERVATIONS:**

1. Plants were mostly along the immediate shoreline with yellow lilies in deeper water.